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Attorney Docket No. LKMP:112US U.S. Patent Application No. 10/613,172 Reply to Office Action of October 25, 2005

Amendment and Request for Reconsideration dated: January 23, 2006

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

What Is Claimed Is:

1. (cancelled)

2. (currently amended) An apparatus for varying the dimensions of a vessel hull comprising:

an arcuate truss assembly having a plurality of members pivotally joined, said assembly operatively arranged to form a portion of said vessel hull, said truss assembly operatively arranged to extend and retract to vary the dimensions of said hull when said plurality of members are pivoted with respect to one another, said members pivoting in a plane substantially coplanar with said portion of said vessel hull, and said vessel is buoyant when said assembly is retracted; and,

pneumatic means operatively arranged to extend and retract said assembly.

3. (currently amended) An apparatus for varying the dimensions of a vessel hull comprising:

an arcuate truss assembly having a plurality of members pivotally joined, said assembly operatively arranged to form a portion of said vessel hull, said truss assembly operatively arranged to extend and retract to vary the dimensions of said hull when said plurality of members are pivoted with respect to one another, said members pivoting in a plane substantially coplanar with said portion of said vessel hull, and said vessel is buoyant when said assembly is retracted; and,

hydraulic means operatively arranged to extend and retract said assembly.

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4. (previously presented) An apparatus for varying the dimensions of a vessel hull comprising:

an arcuate truss assembly having a plurality of members pivotally joined, said assembly operatively arranged to form a portion of said vessel hull, said truss assembly operatively arranged to extend and retract to vary the dimensions of said hull when said plurality of members are pivoted with respect to one another, said members pivoting in a plane substantially coplanar with said portion of said vessel hull; and,

microelectromechanical systems (MEMS) means operatively arranged to extend and retract said assembly.

- 5. (previously presented) The apparatus recited in Claim 2 further comprising a flexible membrane, said membrane connected to said hull around the periphery of said membrane, said membrane operatively arranged to cover said assembly, said membrane operatively arranged to extend and retract as said assembly extends and retracts.
- 6. (original) The apparatus recited in Claim 5 wherein said membrane comprises urethane.
- 7. (original) The apparatus recited in Claim 5 wherein said membrane is connected to said hull with a watertight seal.
- 8. (previously presented) The apparatus recited in Claim 5 wherein said membrane is operatively arranged to retract in a diaphragm shutter like fashion when said assembly is retracted.
- 9. (previously presented) The apparatus recited in Claim 2 further comprising a plurality of plates, said plates operatively arranged to cover said assembly when said assembly is substantially fully extended.

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10. (previously presented) The apparatus recited in Claim 9 wherein said plates form a watertight seal with said hull when said assembly is substantially fully extended.

11. (previously presented) The apparatus recited in Claim 2 wherein said assembly is operatively arranged to extend and retract in a diaphragm shutter like fashion.

12. (previously presented) The apparatus recited in Claim 2 wherein said vessel is a waterborne vessel.

13. (previously presented) The apparatus recited in Claim 2 wherein said vessel is a submersible vessel.

14. (withdrawn) The apparatus recited in Claim 1 wherein said vessel is an airship.

15. (cancelled)

16. (currently amended) A vessel comprising:

a hull;

an arcuate truss assembly having a plurality of members pivotally joined, said truss assembly operatively arranged to form a portion of said hull, said truss assembly operatively arranged to extend and retract to vary the dimensions of said hull when said plurality of members are pivoted with respect to one another, said members pivoting in a plane substantially coplanar with said portion of said vessel hull, and said vessel is buoyant when said assembly is retracted; and,

pneumatic means operatively arranged to extend and retract said assembly.

17. (previously presented) A vessel comprising:

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a hull;

an arcuate truss assembly having a plurality of members pivotally joined, said truss assembly operatively arranged to form a portion of said hull, said truss assembly operatively arranged to extend and retract to vary the dimensions of said hull when said plurality of members are pivoted with respect to one another, said members pivoting in a plane substantially coplanar with said portion of said vessel hull; and,

hydraulic means operatively arranged to extend and retract said assembly.

18. (previously presented) A vessel comprising:

a hull;

an arcuate truss assembly having a plurality of members pivotally joined, said truss assembly operatively arranged to form a portion of said hull, said truss assembly operatively arranged to extend and retract to vary the dimensions of said hull when said plurality of members are pivoted with respect to one another, said members pivoting in a plane substantially coplanar with said portion of said vessel hull; and,

microelectromechanical systems (MEMS) means operatively arranged to extend and retract said assembly.

19. (previously presented) The vessel recited in Claim 16 further comprising a flexible membrane, said membrane connected to said hull around the periphery of said membrane, said membrane operatively arranged to cover said assembly, said membrane operatively arranged to extend and retract as said assembly extends and retracts.

20. (original) The vessel recited in Claim 19 wherein said membrane comprises urethane.

21. (original) The vessel recited in Claim 19 wherein said membrane is connected to said hull with a watertight seal.

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22. (previously presented) The apparatus recited in Claim 19 wherein said membrane is

operatively arranged to retract in a diaphragm shutter like fashion when said assembly is

retracted.

23. (previously presented) The vessel recited in Claim 16 further comprising a plurality of

plates, said plates operatively arranged to cover said assembly when said assembly is

substantially fully extended.

24. (previously presented) The vessel recited in Claim 23 wherein said plates form a

watertight seal with said hull when said assembly is substantially fully extended.

25. (previously presented) The apparatus recited in Claim 16 wherein said assembly is

operatively arranged to extend and retract in a diaphragm shutter like fashion.

26. (previously presented) The apparatus recited in Claim 16 wherein said vessel is a

waterborne vessel.

27. (previously presented) The apparatus recited in Claim 16 wherein said vessel is a

submersible vessel.

28. (withdrawn) The apparatus recited in Claim 15 wherein said vessel is an airship.

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